Pilonidal Cyst

Wayne De Vos, MD, PhD
(written for the American Society of Colon & Rectal Surgeons, 2000
original text can be found at www.fascrs.org)

The etiology of pilonidal disease remains controversial, and may in fact be a combination of factors. Although theories of congenital origin were popular in the past, generally an acquired etiology is more accepted at present. Two popular theories maintain that either 1) a small pit develops secondary to subcutaneous rupture of a follicle in the natal cleft, into which errant hairs may collect; or 2) errant hairs strands burrow into the skin at the level of the natal cleft secondary to their natural unidirectional scaled surface and the propensity of hair to collect in this region. Once a single hair has started the process, others follow. In either case, a subcutaneous cavity or sinus is created, not uncommonly with a surprisingly large amount of hair present in the space. This may smolder for months or years before becoming secondarily infected abscessed.

Presentation
While a pilonidal cyst can be observed in both sexes and at any age, they predominate in men and in the second and third decade of life. Initially presenting as an abscess and cellulitis at the level of the sacrococcygeal area, spontaneous drainage often occurs, to be followed by generally painless chronic waxing and waning drainage from the secondary sinuses. The majority of secondary sinuses track cephalad, but some may track toward the anus, potentially being confused with fistula-in-ano or hidradenitis suppurativa.

The diagnosis is most often readily apparent, with an area of swelling and fluctuance over the sacrum characterizing the acute presentation of a pilonidal abscess, and one or multiple sinus opening in the midline over the sacrum in the chronic state. Midline pits are almost always identifiable inferior to the sinus. Differential diagnosis includes furuncle, anal disease and sacral osteomyelitis.

Treatment
When presenting in the acute phase with redness, swelling, tenderness and fluctuance, drainage of the offending abscess can often be accomplished in the office. Antibiotics are not necessary. The incision should always be made off the midline, and drainage should be assured in the standard fashion as for any abscess. Importantly, any contained hair and debris should be removed
from the abscess cavity, and any loculations should be disrupted. If possible, the chronic sinus should be debrided. The wound can be packed with gauze, and the patient is discharged and instructed to remove the packing the next day, shower or bathe at least twice daily thereafter. Close follow up in the office is important to keep hair from collecting in the healing wound. In many cases, such treated abscesses will heal without sequelae.

When a chronic sinus has developed, multiple options are available for definitive treatment. Generally, healing is expected in 30-60 days, and recurrence is in the range of approximately 15%, with the exception of marsupialization, which has the lowest recurrence rate of approximately 5%. In the majority of cases, treatment under some form of anesthesia will be required. The patient is placed in prone jackknife position, the area over the sacrum is shaved and prepped, and the limits of the pilonidal cavity are determined. This can be done by probing, or by using vital dye such as dilute methylene blue injected carefully into the sinus. This will stain the cyst but not the surrounding tissue, and be a helpful guide regarding completeness of excision of the cyst.

In perhaps the least invasive method, the sinuses are excised individually and closed primarily, and the deep cavity is curetted via a lateral incision, which is left open and packed. A second technique involves excising the anterior aspect of the cyst, with curettage of the base of the cyst. In a third technique, the entire cyst is excised down to sacral fascia and then packed open. In a fourth technique, after excision of the entire cyst, the edges of the wound are marsupialized to the deep tissue, which in most reports decreases healing time and recurrence. In rare circumstances, following complete excision of the cyst and creation of a relatively small wound with minimal tension, it is reasonable to consider primary closure, though this has been found to have a higher recurrence rate compared to secondary healing.

Postoperatively, the patients are instructed to change the dressing at least twice daily, use tub or sitz baths to bathe the area, and to return approximately weekly to the office for examination. At the time of weekly visits, careful removal of all the local hair is imperative to reduce the risk of recurrent cyst formation.

**Complex or recurrent disease**
In a small subset of patients, despite adequate surgical technique, persistent or recurrent pilonidal disease defies cure. In these patients, more advanced plastic techniques aimed at replacement of the midline tissue with skin flaps and grafts (e.g., Z-plasty, myocutaneous flaps) has led to healing in the majority of cases.